Maine Department of Environmental Protection
Reasonably Available Control Technology (RACT)
State Implementation Plan (SIP) Revision
Under the 1997 8-Hour Ozone National Ambient Air Quality Standard (NAAQS)

June 18, 2009

Introduction

Background and Requirements

The federal Clean Air Act (CAA) gives the states primary responsibility for achieving the National Ambient Air Quality Standards (NAAQS). The NAAQS are established by the U.S. Environmental Protection Agency (EPA) as the maximum concentrations in the atmosphere for specific air contaminants to protect public health and welfare. The principal mechanism at the state level for complying with the CAA is the State Implementation Plan (SIP). A SIP includes the regulatory programs, actions, and commitments a state will carry out to implement its responsibilities under the CAA. Once approved by the EPA, a SIP is legally enforceable under both federal and state law.

This document is a SIP revision for meeting the Reasonably Available Control Technology (RACT) requirements mandated under the CAA and regulations related to the 1997 8-hour ozone NAAQS. The CAA requires that states achieve the NAAQS by specified dates, based on the severity of an area's air quality problem. Maintaining concentrations of ground level ozone below the health-based standard is important because ozone is a serious human health threat, and can also cause damage to important food crops, forests and wildlife. Repeated exposure to ozone pollution may cause a variety of adverse health effects for both healthy people and those with existing conditions including difficulty breathing, chest pains, coughing, nausea, throat irritation and congestion. It can exacerbate bronchitis, heart disease, emphysema, and asthma, and reduce lung capacity.

Ozone is generally not directly emitted to the atmosphere; rather it is formed in the atmosphere by photochemical reactions between volatile organic compounds (VOC) and nitrogen oxides (NOx) in the presence of sunlight. Consequently, in order to reduce ozone concentrations in the ambient air, the CAA requires all nonattainment areas to apply controls on VOC/NOx emission sources to achieve emission reductions. Among the effective control measures, the Reasonably Available Control Technology (RACT) controls play a major role in reducing emissions from stationary sources.

The EPA has defined RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility (44 FR 53761, September 17, 1979). Section 182 of the CAA establishes two separate RACT requirements for ozone nonattainment areas. The first requirement, contained in section 182(a)(A) of the CAA, and referred to as RACT fix-up, requires the correction of RACT rules for which EPA identified deficiencies before the CAA was amended in 1990. Maine has no deficiencies to correct under this section of the CAA. The second requirement, set forth in Section 182(b)(2) of the CAA, applies to moderate or worse ozone nonattainment areas as well as to marginal and attainment areas in Ozone Transport Regions (OTRs) established pursuant to Section 184 of the CAA, and requires these nonattainment areas to implement RACT controls on all major VOC and NOx emission sources and on all sources and source categories covered by a Control Technique Guideline[1] document issued by EPA.

Under section 183 of the CAA, EPA was required to issue by certain timeframes several guidance documents for RACT controls that would help states meet the requirements of section 182(b)(2). This requirement upon EPA includes developing (1) Control Techniques Guidelines (CTG) documents for

[1] A Control Technique Guideline (CTG) is an EPA guidance document intended to provide information to assist state and local air pollution authorities in determining RACT for VOC sources. A CTG is not a regulation, but instead a recommendation based on cost-effective control strategies that are currently in use.

controls of VOC emissions from stationary sources, and (2) Alternate Control Techniques (ACT) documents for control of VOC and NOx emissions from stationary sources.

EPA issued three groups of Control Techniques Guideline documents establishing a "presumptive norm" for RACT for various categories of VOC sources:

1) Group I, issued before January 1978 including 15 CTGs;

2) Group II, issued in 1978 including 9 CTGs; and

3) Group III, issued in the early 1980s with 5 CTGs.

Sources not covered by the issued CTGs are referred to as non-CTG sources. Section 182(b)(2) of the CAA requires states with ozone nonattainment areas classified as moderate or worse to develop RACT controls for all pre-enactment (i.e., pre-1990) CTG source categories, for all sources subject to post-enactment (i.e., post-1990) CTGs, and for all non-CTG major sources in their nonattainment areas. The EPA has also issued more than 12 ACTs for various categories of VOCs and NOx sources.

Maine's Ozone Air Quality Status

Nine Maine counties were designated as nonattainment of the 1-hour ozone NAAQS under the 1990 CAA: York, Cumberland and Sagadahoc counties (Planning Area 1); Androscoggin and Kennebec counties (Planning Area 2); and Knox and Lincoln counties (Planning Area 3) were designated as "moderate" nonattainment, while Hancock and Waldo counties (Planning Area 4) were designated as "marginal" nonattainment for ozone.[2] Maine had two nonattainment areas under the 1997 8-hour ozone NAAQS. The Portland Nonattainment area consists of the 57 cities and towns comprising York, Cumberland and Sagadahoc Counties along with Durham, Maine in Androscoggin County, and was been designated as "marginal" nonattainment for the 8-hour ozone standard, while the MidCoast Nonattainment Area consists of 55 coastal towns and islands in Hancock, Knox, Lincoln and Waldo counties, and was designated as a "Basic/General" nonattainment area for the 8-hour ozone standard.

Based on ambient air quality monitoring data for the period from 2003-2005, both the Portland and MidCoast 8-hour ozone nonattainment areas were attaining the 1997 8-hour ozone NAAQS[3], and were redesignated to attainment on 12/11/06 (70 FR 71489).

The 1-hour and 1997 8-hour ozone nonattainment and maintenance areas are illustrated in Figure 1.

For the purpose of regulating stationary sources, the entire State of Maine is considered a "moderate" nonattainment area for the 8-hour ozone NAAQS because it is in the Ozone Transport Region established under operation of law under Section 184 of the CAA. Sections 172(c)(1) and 182(b)(2) and (f) of the CAA require owners and operators of sources in ozone nonattainment areas to implement RACT for sources that are subject to Control Technique Guidelines (CTG) issued by EPA and for "major" sources of VOC and NOx[4], which are ozone precursors. RACT requirements are specified in

[2] Hancock and Waldo counties were redesignated to attainment for the 1-hour ozone standard in 1996.
[3] These areas continue to meet the 1997 ozone NAAQS.
[4] On March 24, 2005, the Maine DEP submitted an exemption request from the NO_x control requirements contained in section 182(f) of the CAA for Northern Maine. This exemption request demonstrated that NO_x emissions in Oxford, Franklin, Somerset, Piscataquis, Penobscot, Waldo, Hancock, Washington and Aroostook counties are not impacting Maine's (former) 8-hour nonattainment, or other 8-hour ozone nonattainment areas in the Ozone Transport Region (OTR) during times when elevated ozone levels are monitored in these areas. Section 182(f) of the CAA along with other sections

the CAA to assure that significant categories of major source emissions are controlled to a "reasonable extent, but not necessarily to the more stringent Best Available Control Technology (BACT) Maximum Available Control Technology (MACT) or Lowest Achievable Emission Rate (LAER) levels.

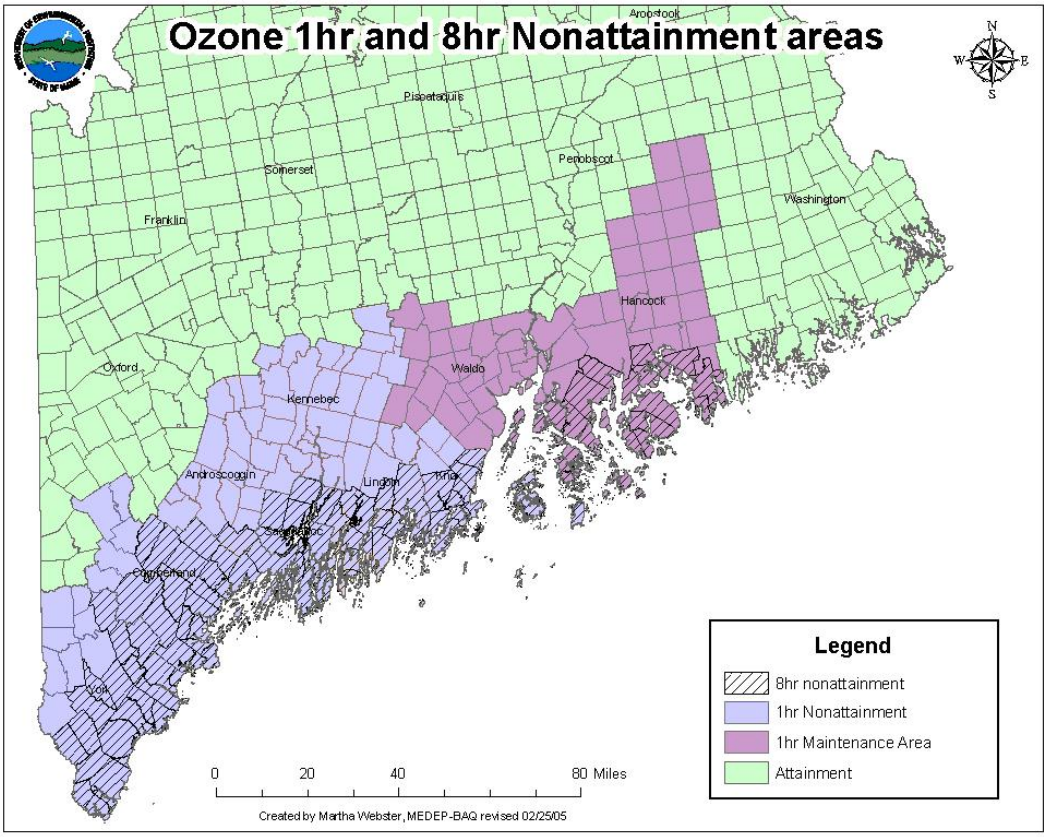

Figure 1

According to the EPA's Final Rule to Implement the 8-Hour Ozone NAAQS (70 FR 71612, November 29, 2005), areas classified as "moderate" nonattainment or higher must submit a demonstration, as a revision to the SIP, that their current rules fulfill 8-hour ozone RACT requirements for all CTG categories and all major, non-CTG sources[5]. Such a demonstration can be made with either a new RACT determination or a certification that previously-required RACT controls represent RACT for the 8-hour ozone NAAQS. The certification should be accompanied by appropriate supporting information, such as information received during the public comment period and consideration of new data, that may supplement existing RACT guidance documents that were developed for the 1-hour

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of the CAA requires states in the Ozone Transport Region to adopt reasonably available control technology (RACT) rules for major stationary sources of NO_x, and to provide for nonattainment area new source review for new sources and modifications that meet or exceed the major source threshold for NO_x. The areas included in the section 182(f) "NO_x Waiver" are therefore not subject to RACT, or new source review offset and lowest achievable emission rate control requirements. The section 182(f) NOx Waiver was approved on February 3, 2006 (71 FR 5791).

[5] The applicable EPA major source thresholds for RACT in Maine under the 1997 8-hour ozone NAAQS are 40 tons per year for VOC and 100 tons per year for NOx. Table 3 indicates which Maine sources are major under these thresholds.

standard, such that State SIPs accurately reflect RACT for the 8-hour ozone standard based on the current availability of technically and economically feasible controls. Adoption of new RACT regulation(s) shall occur when states have new stationary sources not covered by existing RACT regulations, or when new data or technical information indicates that a previously adopted RACT measure does not represent a newly-available RACT control level. Pursuant to EPA's Phase 2 Rule, Maine was required to submit a SIP addressing 8-hour ozone RACT requirements within 29 months of EPA's April 15, 2005 non-attainment areas designation.

2. Certification of VOC and NOx RACT Requirements

The Department is certifying through this SIP that its federally-approved SIP meets the RACT requirements for the 50 tons per year (tpy) non-CTG VOC sources and for the 100 tpy NOx sources, and that all CTG-covered source categories in effect on April 15, 2005 are addressed at the emission thresholds set forth in the CTG. This certification is based on a combination of the following: 1) certification that previously-adopted RACT controls approved by EPA as revisions to Maine's SIP under the 1-hour ozone NAAQS are based on the currently available technically and economically feasible controls, and that they represent RACT for 8-hour implementation purposes; and 2) the adoption of more recent regulations that represent RACT controls. Based on the foregoing, the Department finds that all of its existing and amended rules (see below) that apply to ozone precursor emissions fulfill RACT requirements for the 1997 8-hour ozone NAAQS. Moreover, the Department finds that all CTG sources and major non-CTG sources under its jurisdiction are controlled to RACT or more stringent standards.

Table 1 lists the VOC source categories for which EPA issued CTGs prior to April 15, 2005, and the existing negative declaration indicating that there are no sources in Maine, or the Maine RACT regulation for each of these categories. For all CTG categories, the Maine regulations either incorporated the CTG recommended controls or achieved reductions equivalent to the CTG and were approved by EPA for 1-hour RACT purposes.

Negative Declarations

The CTG categories for which Maine previously submitted negative declarations stating that it did not have sources within a CTG category are also listed in Table 1. Maine performed an inventory of existing and operating VOC sources and their applicable CTG categories by reviewing its point source database for facilities with the North American Industrial Classification System (NAICS) codes that correspond to the CTG categories for which Maine previously submitted negative declarations, reviewing its air emission license database, and conferring with field services staff to confirm the presence (or lack of) a source category in Maine. The Department's analysis confirmed that there are no emission sources in Maine subject to the following CTG requirements:

> Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Coils, EPA-450/2-77- 008, May 1977
>
> Control of Volatile Organic Emissions from Existing Stationary Sources, Volume IV: Surface Coating of Insulation of Magnet Wire, EPA-450/2-77- 034, December 1977
>
> Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Automobiles and Light-duty Trucks, EPA-450/2-77- 008, May 1977

Control of Volatile Organic Emissions from Existing Stationary Sources, Volume V: Surface Coating of Large Appliances, EPA-450/2-77- 034, December 1977

Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds, EPA-450/2-77-025, October 1977

Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products, EPA-450/2-78-029, December 1978

Control of Volatile Organic Compounds Emissions from Large Petroleum Dry Cleaners, EPA-450-3-82-009, September 1982.

Control of Volatile Organic Compounds Equipment Leaks from Synthetic Organic Chemical Manufacturing and Polymer Manufacturing Equipment, EPA-450/3-83-006, March 1984

Control of Volatile Organic Compounds Equipment Leaks from Air oxidation Processes in Synthetic Organic Chemical Manufacturing Industry, EPA-450/3-84-015, March 1984

Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations in SOCMI, EPA-450/4-91-031, November 1993

Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment, EPA-450/2-78-036, June 1978

Control of Volatile Organic Compound Emissions From Petroleum Liquid Storage in External Floating Roof Tanks, EPA-450/2-78-036, June 1978

Control of Volatile Organic Emissions from Manufacturing Vegetable Oils, EPA-450/2-78-035, June 1978

Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires, EPA-450/2-78-030, December 1978

Control of Volatile Organic Compound Equipment leaks from Natural Gas/Gasoline Processing Plants, EPA-450/2-83-007, December 1983

Certification

The certification process began with the Department's staff reviewing the federal and state requirements, including CTGs, Available Control Technology (ACT) documents, federal Standards of Performance for New Stationary Sources (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAPS), and Maximum Available Control Technology (MACT) for the applicable source categories. Each regulation adopted by the Department has been evaluated against applicable CTGs and ACTs, and found to fulfill RACT for all applicable source categories with the exception of asphalt paving.

Major sources of VOC and NOx emissions not covered by a CTG are subject to Maine's Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT) rule and the Chapter 138 Reasonably Available Technology For Facilities that Emit Nitrogen Oxides (NOx RACT) rule. These sources are also subject to the Chapter 115 Major and Minor Source

Air Emission License Regulations and Chapter 140 Part 70 Air Emission License Regulations, which specify the requirements for new or modified major and minor sources in Maine. These regulations require that owners and operators of such new or modified sources comply with the Lowest Achievable Emission Rate (LAER) requirements for VOC and NOx[6]. These sources would also be subject to the Best Available Control Technology (BACT) requirements mandated for the SIP-approved Prevention of Significant Deterioration (PSD) program if they emit increased amounts of VOC or NOx above certain significance levels. MACT is an emission limitation based on the maximum degree of emission reduction (considering energy, environmental, and economic impacts) achievable through application of production processes and available methods, systems and techniques. BACT does not allow emissions in excess of those allowed under any applicable federal CAA provision. A review of the emission levels for sources permitted under LAER/BACT after the implementation of RACT for the 1-hour NAAQS shows LAER control measures to be as stringent, or more restrictive than emission levels required by RACT. In addition to the BACT/LAER requirements for new or modified major sources subject to NSR, the Department requires new sources that do not qualify for review under major source NSR to instead implement best practical treatment (BPT) pursuant to 38 M.R.S.A. § 601.

RACT Revisions

Maine determined that its previous asphalt paving regulations no longer constituted RACT under the 8-hour ozone standard. Asphalt paving is used to pave, seal and repair surfaces such as roads, parking lots, and walkways. Asphalt paving is grouped into three general categories: hot mix, cutback and emulsified. Hot-mix asphalt, the most commonly used paving asphalt, produces minimal VOC emissions. Cutback asphalt is prepared by blending asphalt cement with a diluent, typically from 25 to 45 percent by volume of petroleum distillates. Emulsified asphalt is a lower emitting alternative to cutback asphalt; emulsified asphalts use a blend of asphalt cement, water and an emulsifying agent, such as soap. Some emulsified asphalts may contain virtually no VOCs; others may contain up to 12% VOC by volume.

The EPA published a CTG for the use of cutback asphalt in December 1977. The CTG recommended replacing cutback asphalt binders with emulsified asphalt during the ozone season. In 1979, EPA added a specification for emulsified asphalt to the CTG recommendations to limit the content of oil distillate in emulsified asphalt to no greater than 7 percent oil distillate. Maine's regulation, 06-096 CMR Chapter 131 Cutback Asphalt and Emulsified Asphalt, incorporated the CTG requirements for this sector and met 1-hour RACT as noted in Table 1. It prohibited the use of cutback asphalt on public roads during the ozone season, but allowed for a number of exemptions.

During its review of additional control measures that states should consider adopting as part of the OTC regional 8-hour ozone attainment strategy, the OTC identified asphalt paving as a category where further VOC emission reductions could be achieved. It developed a model rule for the asphalt paving control measures that prohibits the use of cutback asphalt during the ozone season and limits the use of emulsified asphalt to that which contains not more than 0.5 mL of oil distillate from a 200 ml sample (as determined using American Society for Testing and Materials Methods)[7] regardless of the application.

After reviewing the OTC model rule, along with regulations in other northeastern states, Maine has amended its Chapter 131 Cutback and Emulsified Asphalt rule to limit the VOC content of cutback and

[6] Excepting the 182(f) NOx Waiver area, which is subject to BACT.
[7] This is equivalent to a VOC content of 0.25 percent.

emulsified asphalt, eliminate exempted uses of cutback asphalt, and extend the scope of the regulation to all asphalt paving activities.

Certification of VOC RACT Requirements

Table 1 lists each of the Department's VOC RACT regulations, the RACT basis for the regulation (CTG, ACT, etc.), the citation of EPA's approval of the SIP revision, the RACT Rule applicability and requirements, and certification that the current rule represents RACT under the 8-hour ozone NAAQS. Where Maine has certified that a current SIP-approved regulation represents RACT under the 8-hour ozone NAAQS, the Department states that it is not aware of any significant changes in control technology that affect the original RACT determination. The Department previously used a range of $3000-5000/ton of VOC as a benchmark value when determining cost-effective control technology for VOC sources subject to the RACT requirements adopted for the 1-hour ozone standard. Due to increased energy costs, those previously determined cost-effective controls continue to represent RACT for the 8-hour ozone NAAQS because VOC control technology has not substantially changed since the mid-1990s.

In addition to the federally-required CTG and ACT-based regulations, the Department is also including several regulations based on model rules developed by the Ozone Transport Commission in this certification. The Department believes that these rules, which are based on the 2001 Model Rules for Portable Fuel Containers, Mobile Equipment Refinishing and Repair, Consumer Products (along with the 2006 OTC Model Rule), Solvent Cleaning, and Architectural and Industrial Maintenance Coatings establish a benchmark for reasonably available control technology for these source categories.

Certification of NOx RACT Requirements

Table 2 lists the Department's NOx RACT regulations, the basis for the regulation, the citation of EPA's approval of the SIP revision, the RACT Rule applicability and requirements, and certification that the current rule represents RACT under the 8-hour ozone NAAQS. Where Maine has certified that a current SIP-approved regulation represents RACT under the 8-hour ozone standard, it states that it is not aware of any significant changes in control technology that affect the original RACT determination. The Department previously used (for the 1-hour ozone NAAQS) a cost of $1,500 /ton of NOx as a benchmark value when determining cost-effective control technology for NOx sources subject to the Chapter 138 Reasonably Available Technology For Facilities that Emit Nitrogen Oxides (NOx RACT) requirements. These controls continue to represent RACT for the 8-hour ozone NAAQS because NOx control technologies have not changed substantially since the mid-1990's. Although capital; costs for certain control technologies such as SCR and low-NOx burners have remained fairly constant, the annual operating costs have significantly increased due to price increases for urea, electricity and operating labor.

The Department's other NOx RACT regulation, the Chapter 148 Emissions From Smaller-Scale Electric Generating Resources rule, addresses multiple pollutants from stationary generators having a capacity equal to or greater than 50 kilowatts. This rule requires non-emergency generators to meet an emission limit that is equivalent to the use of selective catalytic reduction (SCR) when applied to stationary diesel engines.

Major Source VOC and NOx RACT

As previously noted, the CAA also requires RACT be applied to any major existing stationary source with the potential to emit 50 tons or greater per year of VOC or 100 tons or greater of NOx in the Ozone Transport Region. Maine's Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT) rule applies to all Maine sources with potential VOC emissions of 40 tpy that are not regulated specific regulation[8], while the Chapter 138 Reasonably Available Technology For Facilities that Emit Nitrogen Oxides (NOx RACT) rule applies to all Maine sources with potential NOx emissions of 100 tpy that are not located within the region subject to the section 182(f) NOx Waiver.

Table 3 lists all major sources in Maine, along with their licensed (potential to emit) emissions of VOC and NOx. It should be noted that many NOx sources are located within the nine-county NOx Waiver area, and are thus exempt from federal NOx RACT requirements. Many VOC sources are also exempt from the requirements of the SIP-approved Chapter 134, which states:

> **C. Exempted VOC emitting equipment or process.** The following VOC-emitting equipment or processes are exempted in determining a facility's total VOC emissions:
>
> (1) VOC-emitting equipment or processes that are subject to regulation under 40 CFR Part 61: National Emission Standards for Hazardous Air Pollutants (NESHAPS);
>
> (2) VOC-emitting equipment or processes that achieves Best Available Control Technology for VOC or the Lowest Achievable Emission Rate for VOC, as determined by the Department and imposed in an air emission license which contains specific emission limitations for all affected VOC-emitting equipment or processes and was issued pursuant to federally approved permitting regulations or regulations promulgated by the Environmental Protection Agency (EPA);
>
> (3) VOC-emitting equipment or processes that receive RACT, as determined by the Department in accordance with the following:
>
> (a) Pursuant to a VOC control regulation approved by the EPA for which a Control Techniques Guideline (CTG) document was written, or
>
> (b) As contained in a federally enforceable air emission license issued by the Department prior to the applicable effective date;
>
> (4) VOC-emitting equipment from which the VOCs emitted are from the incomplete combustion of any material, except where material is heated, burned, combusted or otherwise chemically changed under oxygen-deficient conditions by design;
>
> (5) Kraft Recovery Boilers;
>
> (6) Indirect contact wood kilns and wood yards; and
>
> (7) Paper machine area emissions which include paper machines, and the finishing and converting areas.

[8] Specific processes at these facilities may be covered by a CTG.

After reviewing existing stationary sources in Maine, the Department has determined that all major sources of VOC and NOx are currently meeting RACT requirements[9] (see Table 3). The Department has determined, however, that the single-source VOC RACT determination for McCain Foods USA, Inc., Tatermeal Facility (Tatermeal) (air emission license amendment #A-459-71-D-A) was not submitted to EPA for incorporation into the SIP at the time of issuance. This SIP submittal therefore includes, as Appendix A, the Tatermeal single-source VOC RACT air emission license amendment for incorporation in the Maine SIP.

Post- 2005 CTGs

Eleven new CTGs have been issued by EPA since September 2006. These include: Control Techniques Guidelines for Industrial Cleaning Solvents, EPA-453/R-06-001; Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, EPA-453/R-06-002; Control Techniques Guidelines for Flexible Package Printing, EPA-453/R-06-003; Control Techniques Guidelines for Flat Wood Paneling Coatings, EPA-453/R-06-004; Control Techniques Guidelines for Paper, Film and Foil Coatings, EPA-453/R-07-003; Control Techniques Guidelines for Large Appliance Coatings, EPA-453/R-07-004; Control Techniques Guidelines for Metal Furniture Coatings, EPA-453/R-07-005; Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings, EPA-453/R-08-003; Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials, EPA-453/R-08-004; Control Techniques Guidelines for Miscellaneous Industrial Adhesives, EPA-453/R-08-005; and Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings, EPA-453/R-08-006

The Department has determined that there are no applicable sources for two of these new CTG categories (Control Techniques Guidelines for Large Appliance Coatings and Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings) and will be submitting negative declarations. For the remaining categories, the Department will be undertaking rulemaking in the near future.

[9] A number of major sources are subject to BACT/LAER; RACT is less stringent than either of these control levels, so these facilities already meet RACT under existing permits.

TABLE 1

Maine 8-Hour Ozone Standard VOC RACT Certification

RACT Basis	Maine Regulations, Applicability and Requirements	Negative Declaration	EPA SIP Approval Date	Maine DEP Certification: 8-hour Ozone Standard RACT	Comments
Pre-1990 CTGs					
1. Surface coating of coils (1977)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
2. Surface coating of magnet wire (1977)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
3. Surface coating of automobile and light duty trucks	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
4. Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (1977)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
5. Leaks from Petroleum Refinery Equipment (1978)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
6. Manufacture of Synthetic Pharmaceutical Product (1978)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
7. Surface Coating of Large Appliances (1977)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
8. Manufacturing of Vegetable Oil (1978)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine	
9. Manufacture of Pneumatic Rubber Tires (1978)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
10. Petroleum Storage in External Floating Roof Tanks (1978)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	

11. Large Petroleum Dry Cleaners (1982)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	.
12. Manufacture of High-Density Polyethylene, Polypropylene and Polystyrene Resins (1983)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
13. Natural Gas/Gasoline Process Leaks (1983)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
14. Synthetic Organic Chemical Mfg Equipment Fugitive Emissions (1984)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
15. Synthetic Organic Chemical Mfg Air Oxidation Processes (1984)	N/A	Yes	6/17/94 59 FR 31154	There are still no sources in Maine.	
16. Leaks from Gasoline Tank Trucks and Vapor Collection System (1978)	06-096 CMR Chapter 120 Gasoline Tank Truck Tightness Self-Certification This regulation requires that all tank trucks that transport and receive gasoline from a bulk gasoline terminal and/or plant be maintained leak-tight and must be tested and certified annually.		6/29/95 60 FR 33730 10/15/96 61 FR 53639	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
17. Stage I Vapor Control Systems (1975)	06-096 CMR Chapter 118 Gasoline Dispensing Facilities Vapor Control This regulation requires control of gasoline vapors emitted during the transfer of gasoline from tank trucks to stationary gasoline storage tanks (Stage I) and from the refueling of automobiles (Stage II) at gasoline dispensing facilities. Any gasoline dispensing facility whose monthly throughput ever exceeds the initial applicability threshold of 10,000 gallons per month is subject to all of the Stage I provisions of this regulation and any facility whose annual throughput ever exceeds the initial applicability threshold of 1,000,000 gallons per year is subject to the Stage II provisions of this regulation.		6/29/95 60 FR 33730	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	

18. Surface Coating of Cans (1977)	06-096 CMR Chapter 129 Surface Coating This regulation establishes consistent requirements for testing, evaluating and limiting the emissions of volatile organic compounds (VOC) and Hazardous Air Pollutants (HAP) from selected surface coating operations. VOC surface coating facilities can select one of three compliance methods: low solvent content coating technology, daily-weighted averaging, and add-on air pollution control devices.		6/17/94 59 FR 31154	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
19. Surface Coating of Fabric Products (1977)	06-096 CMR Chapter 129 Surface Coating This regulation establishes consistent requirements for testing, evaluating and limiting the emissions of volatile organic compounds (VOC) and Hazardous Air Pollutants (HAP) from selected surface coating operations. VOC surface coating facilities can select one of three compliance methods: low solvent content coating technology, daily-weighted averaging, and add-on air pollution control devices.		6/17/94 59 FR 31154	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
20. Surface Coating of Paper Products (1977)	06-096 CMR Chapter 123 Paper Coating Regulation This regulation applies to roll, knife, meyer rod or rotogravure coater(s) and drying oven(s) of paper coating lines at stationary sources of volatile organic compounds. The rule limits the VOC content of coatings to 2.9 lbs per gallon of coating or requires the use add-on control equipment.		2/2/921 57 FR 3046	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
21. Solvent Metal Cleaning (1977)	06-096 CMR Chapter 130 Solvent Cleaners This regulation limits VOC emissions from solvent cleaning machines (solvent cleaners) and sets minimum requirements for equipment and operation standards in order to reduce VOC emissions. Cold cleaning machines must use a solvent with a vapor pressure of 1.00 mm Hg, or less.		6/17/94 59 FR 31154 5/26/05 70 FR 30369	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	This rule incorporates the 2001 OTC Model Rule for Solvent Cleaning and also satisfies the October 5, 2005 Cleaning Solvents CTG requirements

22. Surface Coating Misc. Metal Parts (1978)	06-096 CMR Chapter 129 Surface Coating This regulation establishes consistent requirements for testing, evaluating and limiting the emissions of volatile organic compounds (VOC) and Hazardous Air Pollutants (HAP) from selected surface coating operations. VOC surface coating facilities can select one of three compliance methods: low solvent content coating technology, daily-weighted averaging, and add-on air pollution control devices.		6/17/94 59 FR 31154	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
23. Surface Coating Flat Wood Paneling (1978)	06-096 CMR Chapter 129 Surface Coating This regulation establishes consistent requirements for testing, evaluating and limiting the emissions of volatile organic compounds (VOC) and Hazardous Air Pollutants (HAP) from selected surface coating operations. VOC surface coating facilities can select one of three compliance methods: low solvent content coating technology, daily-weighted averaging, and add-on air pollution control devices.		6/17/94 59 FR 31154	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
24. Tank Truck Gasoline Loading Terminals (1977).	06-096 CMR Chapter 112 Bulk Terminal Petroleum Liquid Transfer Requirements This regulation requires bulk gasoline terminals loading tank trucks or trailers and who dispense 20,000 gallons or more of gasoline per day to install a vapor control system and requires tank truck tightness certification. This system must control gasoline vapors so that not more than 35 milligrams of vapor escapes for each liter of gasoline transferred. Two federal regulations, requiring controls on marine vessel loading operations and gasoline distribution using maximum achievable control technology (MACT), are incorporated by reference.		6/29/95 60 FR 33730 10/15/96 61 FR 536390	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	

25. Surface Coating Metal Furniture (1977)	06-096 CMR Chapter 129 Surface Coating This regulation establishes consistent requirements for testing, evaluating and limiting the emissions of volatile organic compounds (VOC) and Hazardous Air Pollutants (HAP) from selected surface coating operations. VOC surface coating facilities can select one of three compliance methods: low solvent content coating technology, daily-weighted averaging, and add-on air pollution control devices.		6/17/94 59 FR 31154	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
26. Graphic Arts – Rotogravure & Flexography (1978)	06-096 CMR Chapter 132 Graphic Arts-Rotogravure and Flexography This rule applies to any packaging, rotogravure, publication gravure or flexographic printing process at a facility. The rule establishes the VOC content limit in coatings and inks used at the covered facilities, and specifies standards for control devices for various printing processes.		6/17/94 59 FR 31154	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
27. Bulk Gasoline Plants (1977)	06-096 CMR Chapter 133 Petroleum Liquids Transfer Vapor Recovery at Bulk Gasoline Plants This regulation requires applicable bulk gasoline plants loading tank trucks or trailers to install a vapor balance system or submerged fill.		6/29/95 60 FR 33730	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	

28. Fixed Roof Petroleum Tanks (1977)	06-096 CMR Chapter 111 Petroleum Liquid Storage Vapor Control This regulation requires all owners of fixed roof storage tanks, storing gasoline, crude oil or any petroleum liquid whose vapor pressure is greater than 1.52 psia (10.5 kilo pascals) to install floating roofs to reduce the hydrocarbon vapors lost to the atmosphere. This regulation prohibits the emptying and degassing of petroleum storage vessels for the purpose of performing a complete inspection on days for which the Department has issued an ozone health advisory beginning January 1, 2000 and between June 1 and August 31 each year beginning January 1, 2004.		2/3/92 57 FR 3948	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
29. Use of Cutback Asphalt (1977)	06-096 CMR Chapter 131 Cutback Asphalt and Emulsified Asphalt This regulation applies to the mixing, storage, use, and application of cutback and emulsified asphalts.		6/17/94 59 FR 31154	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	This rule was amended on XXX, 2009 to prohibit the use of cutback asphalt and emulsified asphalt with more than 0.1% VOC by weight during the ozone season.
30. Perchloroethylene Dry Cleaning Systems (1978)	06-096 CMR Chapter 125 Perchlorethylene Dry Cleaners			No certification required.	This CTG is no longer applicable because PER has been exempted from regulation as a VOIC due to its negligible photochemical reactivity.

31. Leaks from Gasoline Tank Trucks and Vapor Collection System (1978)	06-096 CMR Chapter 120 Gasoline Tank Truck Tightness Self-Certification This regulation requires that all tank trucks that transport and receive gasoline from a bulk gasoline terminal and/or plant be maintained leak-tight and must be tested and certified annually. A tank truck subject to the provisions of this Chapter may sustain a pressure change of no more than 3 inches of water over five consecutive minutes when pressurized to a gauge pressure of 18 inches of water or when evacuated to a gauge pressure of 6 inches of water		6/29/95 60 FR 33730	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	

Post 1990 CTGs					
1. Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations and Reactor Processes (1993)		Yes	4/18/00 65 FR 20749	There are still no sources in Maine.	
3. Ship Building and Repair (1996)	06-096 Chapter 134 Non-CTG VOC RACT-Portsmouth Naval Shipyard		4/18/00 65 FR 20749	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	40 CFR Part 63, Subpart II. "National Emission Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair (Surface Coating) Operations" incorporated by reference in Chapter 129
	06-096 Chapter 134 Non-CTG VOC RACT-Bath Iron Works		5/20/02 67 FR 35439	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	
2. Wood Furniture Manufacturing (1996)	06-096 Chapter 134 Non-CTG VOC RACT-Moosehead Manufacturing Dover Foxcroft and Monson Facilities		5/20/02 67 FR 35439	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	40 CFR Part 63, Subpart JJ. "National Emission Standards for Hazardous Air Pollutants: Final Standards for Hazardous Air Pollutants From Wood Furniture Manufacturing Operations" incorporated by reference in Chapter 129
4. Aerospace Coatings (1996)	06-096 Chapter 134 Non-CTG VOC RACT-Pratt and Whitney		5/20/02 67 FR 35439	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	40 CR Part 63, Subpart GG. "National Emission Standards for Hazardous Air Pollutants for Source Categories: Aerospace Manufacturing and Rework Facilities" incorporated by reference in Chapter 129

Other					
Ozone Transport Commission Model Rule for Architectural and Industrial Maintenance (AIM) Coatings, 2001	06-096 Chapter 151 Architectural and industrial Maintenance (AIM) Coatings This regulation establishes limits for emissions of volatile organic compounds from architectural and industrial maintenance coatings.		3/17/06 71 FR 13767	This rule is more stringent than the current Federal requirements and represents RACT under the 1997 8-hour ozone NAAQS.	
Ozone Transport Commission Model Rule for Consumer Products, 2001 Ozone Transport Commission Model Rule for Consumer Products, 2006	06-096 Chapter 152 Control of Emissions of Volatile Organic Compounds From Consumer Products This regulation limits emissions of volatile organic compounds from consumer products by establishing emission limits for consumer product source categories.		10/24/05 70 FR 61382	This rule is more stringent than the current Federal requirements and represents RACT under the 1997 8-hour ozone NAAQS	This regulation was amended to incorporate the 2006 OTC model rule provisions, and was submitted to EPA for inclusion in the Maine SIP on February 28, 2008.
Automobile Body Refinishing ACT (EPA 453/R-94-031, April 1994) Ozone Transport Commission Model Rule for Mobile Equipment Repair and Refinishing, 2001	06-096 Chapter 153 Mobile Equipment Repair and Refinishing This regulation limits emissions of volatile organic compounds from mobile equipment refinishing and repair facilities by limiting the VOC content of coatings, requiring the use of high-efficiency coating application systems, and through work practice standards.		5/26/05 70 FR 30367	This rule is more stringent than the current ACT and represents RACT under the 1997 8-hour ozone NAAQS.	The VOC limits for mobile equipment repair and refinishing coatings are in effect nationally under the Federal requirements at 40 CFR Part 59, subpart B, National VOC Emission Standards for Automobile Refinish Coatings, 1998.
Ozone Transport Commission Model Rule for Portable Fuel Containers, 2001	06-096 Chapter 155 Portable Fuel Container Spillage Control This regulation limits emissions of volatile organic compounds by requiring new portable fuel containers to meet performance standards for spill-proof systems.		2/7/05 70 FR 6352	This rule is more stringent than the current Federal requirements and represents RACT under the1997 8-hour ozone NAAQS	

Non-CTG VOC RACT					
VOC RACT CAA Section 182(b)(C)	06-096 Chapter 134 Reasonably Available Control Technology For Facilities that Emit Volatile Organic Compounds (VOC-RACT) This regulation establishes Reasonably Available Control Technology (RACT) requirements for facilities that emit or have the potential to emit forty (40) tons or more per year of volatile organic compounds (VOC).		4/18/00 65FR 20753	Current regulation represents RACT under the 1997 8-hour ozone NAAQS.	

TABLE 2

Maine DEP 8-Hour Ozone Standard NOx RACT Certification

RACT Basis	Maine Regulations, Applicability and Requirements	Negative Declaration	EPA SIP Approval Dates	Maine DEP Certification: 8-hour Ozone Standard RACT	Comments
NOx RACT CAA Section 182(b)(2) and Section 182(f)	096-096 Chapter 138 Reasonably Available Technology For Facilities that Emit Nitrogen Oxides (NOx RACT) This regulation establishes Reasonably Available Control Technology (RACT) standards for stationary sources of Nitrogen Oxides (NO_X) which have the potential to emit quantities of NO_X equal to or greater than 100 tons per year.		9/9/02 67 FR 57148	Current regulation represents RACT for non-CTG major sources under the 1997 8-hour ozone NAAQS.	See Table 3 for listing of Maine Non-CTG NOx RACT Sources
Control Measure Development Support Analysis of Ozone Transport Commission Model Rules, E.H. Pechan, March 31, 2001 Model Regulations for the Output of Specified Air Emissions from Smaller Scale Electric Generation Resources, The Regulatory Assistance Project , October 2002.	06-096 Chapter 148 Emissions From Smaller-Scale Electric Generating Resources This regulation applies to all non-mobile generators having a capacity equal to or greater than 50 kilowatts installed on or after January 1, 2005.		5/26/06 70 FR 30376	Current regulation represents RACT under the 1997 8-hour ozone NAAQS for stationary generators	

Table 3
Major Sources of VOC and NOx in Maine and Applicable RACT Regulations

Source #	Facility Name	Physical Town	VOC	NOx	Applicable RACT Requirements	EPA SIP Approval Date	Notes
333	Bath Iron Works Corporation	Bath	101.3	127.5	VOC – single source SIP revisions	5/20/02 (67 FR 35441)	Non-exempt stationary sources at the facility are limited to 99.9 tons NOx per year.
577	Boralex Ashland LP	Ashland	41.6	401.1	None		A,B
181	Boralex Fort Fairfield LP	Fort Fairfield	4.8	690	None		A
555	Boralex Livermore Falls LP	Livermore Falls	53.2	367.5	NOx	Subject to BACT- NOx	B
67	Boralex Sherman LLC	Sherman Station	42.5	349.1	None		A,B
368	Boralex Stratton Energy LP	Eustis	206.9	753.7	None		A,B
728	Casco Bay Energy Company, LLC	Veazie	41	224.4	None		A,B
460	CITGO Petroleum Corporation	South Portland	117.3	34	VOC	Controlled pursuant to Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)	
91	Covanta Maine LLC	Enfield	145.8	249.9	None		A,B
127	Covanta Maine LLC	Jonesboro	145.8	249.9	None		A,B
389	Daaquam Maine Inc	Costigan	31.0	124.5	None		A
215	Domtar Maine Corp	Baileyville	306	1178	None		A,B
326	Dragon Products Company LLC	Thomaston	57.7	1533	NOx- single source SIP revision	9/9/02 (67 FR 57154)	B
283	eco maine	Portland	13.6	436.9	NOx	Controlled pursuant to 096-096 Chapter 138 Reasonably Available Technology For Facilities that Emit Nitrogen Oxides (NOx RACT).	

Source #	Facility Name	Physical Town	VOC	NOx	Applicable RACT Requirements	EPA SIP Approval Date	Notes
282	ExxonMobil Oil Corporation	South Portland	135.4	8.5	VOC	Controlled pursuant to 06-096 Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)	
366	FMC Corporation	Rockland	434	322.5	VOC NOx- Single source SIP revision	Controlled pursuant to 06-096 Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)- VOC 4/18/00 (65 FR 20753) –NOx	
388	FPL Energy Wyman LLC & Wyman IV LLC	Yarmouth	3859.8	12423	NOx- Single source SIP revision	4/18/00 (65FR20753)	B
263	Fraser Papers Limited	Madawaska	130	99	None		A,B
489	Fraser Timber Limited	Ashland	75	60.4	None		B
165	Fraser Timber Limited	Masardis	101.7	28.6	None		B
342	Geneva Wood Fuels LLC	Strong	57.8	55.5	None		B
261	Greenville Steam Company	Greenville	114.6	205.3	None		A,B
62	Huber Engineered Woods LLC	Easton	141.1	318.2	None		A,B
416	Huhtamaki Foodservice Inc	Waterville	4.1	212.6	NOx- Single source SIP revision	4/18/00 (65 FR20753)	
409	Irving Forest Products Inc	Dixfield	101.13	151.45	None		A, B
314	Irving Forest Products Inc	Nashville Plt	97	97	None		B
252	Irving Tanning Company	Hartland	261.9	62.5	VOC	Subject to BACT	
405	Katahdin Paper Company LLC	East Millinocket	102.9	1708.9	None		A,B
406	Katahdin Paper Company LLC	Millinocket	34.5	1552.8	None		A
104	Knight-Celotex LLC	Lisbon Falls	120	40	VOC	Controlled pursuant to 06-096 Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)	

Source #	Facility Name	Physical Town	VOC	NOx	Applicable RACT Requirements	EPA SIP Approval Date	Notes
177	Lincoln Paper and Tissue LLC	Lincoln	229.4	2080.9	VOC- Single source SIP revision	4/18/00 (65 FR 20754)	A,B Also subject to paper MACT
126	Louisiana-Pacific Corporation	Baileyville	272	358	VOC		Permanently shutdown
327	Louisiana-Pacific Corporation	New Limerick	59.2	310.7	VOC	Subject to MACT	A
46	Maine Energy Recovery Company Limited Partnership	Biddeford	65	599	NOx- Single source SIP revision	9/9/02 (67 FR 57154)	B
436	McCain Foods USA Inc	Easton	7.5	275.7	None		A
459	McCain Foods USA Inc (Tatermeal)	Presque Isle	208.6	119.7	VOC	Submittal pending	A
378	Mid-Maine Waste Action Corporation	Auburn	10.18	470.81	NOx- Single source SIP revision	9/9/02 (67 FR 57154)	
779	Moose River Lumber Company Inc	Jackman	66.44	52.88	None		B
427	Myllykoski North America	Madison	47	376	None		A,B
355	Penobscot Energy Recovery Company Limited Partners	Orrington	63.1	599.2	None		A,B
448	Pioneer Plastics Corporation	Auburn	141.5	306.1	VOC- Single source SIP revision NOx- Single source SIP revision	9/9/02 (67 FR 57154) – VOC 4/18/00 (65 FR 20753) - NOx	
197	Portland Pipe Line Corporation	South Portland	220	1.3	VOC	Controlled pursuant to 06-096 Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)	
452	Portsmouth Naval Shipyard	Kittery	76.2	343	VOC NOx - Single source SIP revision	Controlled pursuant to 06-096 Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)- VOC 4/12/00 (65 FR 20753) - NOx	Also subject to 40 CFR Part 63, Subpart II. "National Emission Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair (Surface Coating) Operations" incorporated by reference in Chapter 129

Source #	Facility Name	Physical Town	VOC	NOx	Applicable RACT Requirements	EPA SIP Approval Date	Notes
38	RR Donnelley and Sons Company	Wells	109.1	43.4	VOC	Controlled pursuant to 06-096 Chapter 134 Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT	
180	Red Shield Acquisition LLC	Old Town	240	1790	VOC	4/18/00 (65 FR 20753)	
156	Robbins Lumber Inc.	Searsmont	69.5	86.5	None		B
214	Rumford Paper Company	Rumford	114.1	5577.1	VOC	4/18/00 (65 FR 20754)	A,B
724	Rumford Power Inc	Rumford	13.9	115.8	None		A
19	S D Warren Company	Skowhegan	209.9	6033.9	VOC	4/18/00 (65 FR 20753)	B Also subject to MACT
29	S D Warren Company	Westbrook	321.8	1830.1	VOC, NOx	4/18/00 (65 FR 20754) - VOC 9/9/02 (67 FR 57154) - NOx	
506	The Dingley Press Inc	Lisbon	94.4	37.9	VOC	Subject to BACT	
204	University of Maine	Orono	31.3	182.7	None		A
210	US Navy Computer & Telecommunications Station	Cutler	22.8	563.3	None		A
718	Verso Androscoggin LLC	Jay	49.9	447.8	None		A,B
203	Verso Androscoggin LLC	Jay	933.4	4487.3	VOC- Single source SIP revision	4/18/00 (65 FR 20753)	A,B
22	Verso Bucksport LLC	Bucksport	379	1456	VOC - Single source SIP revision	4/19/00 (65 FR 20753)	A
149	Wausau Paper Specialty Products LLC	Jay	73.25	350.4	VOC		A,B

Notes:

A - Section 182 (f) NOx waiver

B - Exempted VOC emitting equipment or process. The following VOC-emitting equipment or processes are exempted in determining a facility's total VOC emissions:

(1) VOC-emitting equipment or processes that are subject to regulation under 40 CFR Part 61: National Emission Standards for Hazardous Air Pollutants (NESHAPS);

(2) VOC-emitting equipment or processes that achieves Best Available Control Technology for VOC or the Lowest Achievable Emission Rate for VOC, as determined by the Department and imposed in an air emission license which contains specific emission limitations for all affected VOC-emitting equipment or processes and was issued pursuant to federally approved permitting regulations or regulations promulgated by the Environmental Protection Agency (EPA);

(3) VOC-emitting equipment or processes that receive RACT, as determined by the Department in accordance with the following:

(a) Pursuant to a VOC control regulation approved by the EPA for which a Control Techniques Guideline (CTG) document was written, or

(b) As contained in a federally enforceable air emission license issued by the Department prior to the applicable effective date;

(4) VOC-emitting equipment from which the VOCs emitted are from the incomplete combustion of any material, except where material is heated, burned, combusted or otherwise chemically changed under oxygen-deficient conditions by design;

(5) Kraft Recovery Boilers;

(6) Indirect contact wood kilns and wood yards; and

(7) Paper machine area emissions which include paper machines, and the finishing and converting areas.

APPENDIX A